

What is claimed is:

1. A rotary internal combustion engine comprising:
a compression chamber having a first 0° position adapted to
receive fuel and compress the fuel;
5 an ignition chamber having a second 0° position adapted to
receive compressed fuel from the compression chamber
and combust the compressed fuel wherein the second 0°
position is offset in relation to the first 0°
position; and
10 a separation wall between the compression chamber and
ignition chamber adapted to allow passage of compressed
fuel from the compression chamber to the ignition
chamber.
- 15 2. The apparatus of claim 1, further comprising a first
rotor rotatably received within the compression chamber and
a second rotor rotatably received within the ignition
chamber.
- 20 3. The apparatus of claim 2, wherein each rotor has a vane
slidably mounted in a radially extended slot so that
rotation of the rotors will cause outer ends of the vane to
engage the chambers to vary the space on opposite sides of
the vane when the rotors are rotating.
- 25 4. The apparatus of claim 1, further comprising a transfer
slot in the separation wall adapted to permit compressed
fuel to move from the compression chamber into the ignition
chamber.
- 30 5. The apparatus of claim 1, wherein the compression
chamber has an epicycloidal-shaped wall.

6. The apparatus of claim 1, wherein the combustion chamber has an epicyclodial-shaped wall.

7. The apparatus of claim 1, wherein the second 0°
5 position is offset in relation to the first 0° position between 0 and 45 degrees.

8. The apparatus of claim 1, wherein a plurality of the rotary internal combustion engines are used in series along
10 the same axis of rotation.

9. A rotary internal combustion engine, comprising:
a compression chamber adapted to receive fuel and compress the fuel;
15 an ignition chamber adapted to receive compressed fuel from the compression chamber and combust the compressed fuel;
a separation wall between the compression chamber and ignition chamber adapted to allow passage of compressed
20 fuel from the compression chamber to the ignition chamber;
the compression chamber having an epicyclodial-shaped chamber wall; and
the ignition chamber having an epicyclodial-shaped chamber
25 wall.

10. The apparatus of claim 9, further comprising a first rotor rotatably received within the compression chamber and a second rotor rotatably received within the ignition
30 chamber.

11. The apparatus of claim 10, wherein each rotor has a vane slidably mounted in a radially extended slot so that rotation of the rotors will cause outer ends of the vane to engage the chambers to vary the space on opposite sides of the vane when the rotors are rotating.
12. The apparatus of claim 9, further comprising a transfer slot in the separation wall adapted to permit compressed fuel to move from the compression chamber into the ignition chamber.
13. The apparatus of claim 9, wherein the compression chamber has an epicycloidal-shaped wall comprising:
a compression chamber having a first 0° position adapted to receive fuel and compress the fuel;
an ignition chamber having a second 0° position adapted to receive compressed fuel from the compression chamber and combust the compressed fuel wherein the second 0° position is offset in relation to the first 0° position; and
a separation wall between the compression chamber and ignition chamber adapted to allow passage of compressed fuel from the compression chamber to the ignition chamber.
14. The apparatus of claim 9, wherein the second 0° position is offset in relation to the first 0° position between 0 and 45 degrees.
15. The apparatus of claim 9, wherein a plurality of the rotary internal combustion engines are used in series along the same axis of rotation.